REMARKS

Favorable consideration and allowance of the claims of the present application are respectfully requested. The Applicant respectfully requests entry of this after-final amendment in order to address the newly cited prior art reference to Nishida.

In the present Official Action, the Examiner rejected Claims 1-23 under 35 U.S.C. §103(a) as allegedly being unpatentable over Schiller (US 2002/0031243) ("Schiller") in view of Pittel (US 2003/0095708)("Pittel") and in further view of Nishida et al. (US 4803735) ("Nishida") applied herein for the first time.

At the outset, applicant takes this opportunity to amend independent method Claim 9 to re-characterize step b) as implementing a digital image capture means mounted in the pervasive device to obtain images of said non-electronic stylus as a user writes on said touch screen. Respectfully, no new matter is being entered.

With respect to the present Office Action, while it appears the Examiner agrees to applicants arguments that Schiller and Pittel combined do not teach two-points based tilt determination method, the Examiner alleges that the combination of Schiller and Pittel when combined with Nishida, renders Claims 1, 9 and 17 as obvious to one skilled in the art.

Applicants respectfully disagree in view of the amendments to Claims 1, 9 and 17 herein. That is, Claims 1, 9 and 17 are being amended to set forth that the mounted digital image capture means obtains images located along a plane that is perpendicular to the plane of touch screen surface. Respectfully, no new matter is being entered as full support can be found in the present specification, e.g., at paragraph [0027] and Fig. 5.

Respectfully, Nishida is absolutely irrelevant to the teachings of Pittel and Schiller. Nishida, is directed to recognizing a whole object from partial shapes extracted from the object. As shown in Fig. 1, Nishida implements a TV camera device, which is not, a digital image capture device (camera) but an analog device providing video images that are first processed by video processing devices. That is, Nishida's TV camera is an analog device and requires extensive processing to obtain the partial images as required to recognize a whole object passing on a moving conveyor. Moreover, in further distinction, Nishida's TV camera device (element 3, in Fig. 1 of Nishida) is positioned overhead the moving conveyor and thereby can only obtain a top plan image of object passing underneath the Nishida.

To the contrary, in the present invention, the mounted digital image capture device obtains images located along a plane that is perpendicular to the plane of touch screen surface. As Nishida TV camera orientation can never teach this, any processing related to obtaining images as taught in Nishida, is not applicable and irrelevant to the application of Pittel and Schiller.

That is, one skilled in the art would not apply Nishida's method to Pittel's tilt determination using only two points. Nishida essentially is directed to determining a position and orientation of an object in the context of a printed circuit being processed in an automated assembly line where a robot arm inserts elements into the circuit board -hence requiring a precise determination of the positioning information of all the holes). In Nishida, how to calculate the positioning is taught from at least two images of shapes inside the object itself- for example, two holes or a hole and some line etc. Through image recognition employed in Nishida, some features are calculated - for example, center of the hole - and shift in the placement of the object as well as a rotational angle are computed. While elementary

calculations, such as taught in Nishida at cols. 4 and 5, can be used to obtain a shift in horizontal and vertical directions of a vector (x1,y1;x2y2) that is shifted and rotated to another vector (x3,y3;x4,y4) this is only facilitated by the field of view of the image taken in Nishida. From these two vectors one can find what was the shift in horizontal and vertical directions - |x1-x3| and |y1-y3| - and also rotational angle as inverse tan (y3-y1/x3-x1). However, this math though is completely inapplicable to Pittel - Pittel's method inherently requires three points because, as has already been established, Pittel absolutely requires a ratio of two distances. For example, see Figs. 4 and 5 of Pittel and respective paragraphs [0040] and [0041], which teach two different embodiments (when the line of tilt lies on a plane that is parallel to the sensor plane Fig. 4 of Pittel and, when the plane that the writing instrument is tilted is not parallel to the sensor as in Fig. 5 of Pittel) both require calculation of a ratio of two distances –requiring three points.

To the contrary, the claimed invention as claimed in amended Claims 1, 9, 17 requires only two points for calculating a tilt angle i.e., the exact coordinates only need to be determined for two (2) points belonging to a line going through the pen as suggested by the equation (1) at page 7, paragraph [0029] of the originally filed specification.

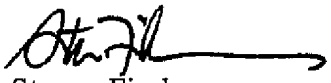
Thus, in sum, as was previously argued, the cited reference to Pittel teaches away from the present invention in that it requires three points to discern tilt information and that the present invention "only" requires two points to discern tilt information including a tilt angle. Nishida, does not help in this regard, as it teaches elementary math that would not be applicable to the combination of Schiller taken in view of Pittel as the orientation of obtained images (provided by the overhead field of view described in Nishida) is not applicable to the calculations.

Thus, the applied combination of Schiller, Pittel and Nishida would not lead one skilled in the art to procure a dynamic handwriting recognition system for a pervasive device that includes calculation of tilt parameters including a tilt angle determined by only two points in three-dimensional space.

Thus, in view of the clarifying amendments, Schiller, Pittel and Nishida do not render the present invention obvious and the Examiner is respectfully requested to withdraw the rejections of independent Claims 1, 9 and 17 under 35 U.S.C. §103(a) and, further, to withdraw the rejections of all remaining dependent claims. With respect to remaining dependent claims, these are allowable as being dependent upon respective independent claims.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance be issued. If the Examiner believes that a telephone conference with the Applicants' attorneys would be advantageous to the disposition of this case, the Examiner is requested to telephone the undersigned, Applicants' attorney, at the following telephone number: (516) 742-4343.

Respectfully submitted,



Steven Fischman
Registration No. 34,594

SCULLY, SCOTT, MURPHY & PRESSER, P.C.
400 Garden City Plaza, Suite 300
Garden City, New York 11530
(516) 742-4343

SF:gc